CLCS Architecture Baseline Review

April 23, 1997

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Architecture Baseline Review Agenda

Morning Session

8:30 - 11:30 Launch Control Center (LCC) Room 3R23

Subject	Presenter	Time
Opening Remarks	R.Hart	5 Min
ABR Objectives	K. Lougheed	5 Min
Operational Concept	J. Wheeler	20 Min
SEMP/System Engineering Process	K.Lougheed	35 Min
Break		
SLS Overview	K. Clark	30 Min
CLCS System Arch.	R. Dawson	30 Min

Afternoon Session

1:00 LCC Room 3R23

Subject	Presenter	Time
RTPS Software Arch	L. Wilhelm	45 Min
Application Software Overview	B. Bryant	35 Min
Five Year Schedule	T. Fleming	20 Min
Transition Plan	S. Altemus	15 Min
System Test Plan	D. Reinhart	20 Min
Closing Remarks	R. Hart	10 Min

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Opening Remarks - Program Objective

- **The Checkout and Launch Control System Represents NASA's Investment in the Future Which Will:**

  - **Ensure Continued Safe and Dependable Shuttle Launch Support for the Duration of the Program**

  - **Reduce Shuttle Operational Costs**

  - **Provide Building Blocks for Future Endeavors**

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Opening Remarks - CLCS New Features

The CLCS Has Redefined the Shuttle Processing Environment in Several Key Areas Which Will Improve Checkout Efficiencies

- **Command and Monitor Data Have Been Separated**
  - Monitor Data Can Now be Distributed Freely Without Fear of Inadvertent Command Issuance
  - Launch Team Members Can View Test, Playback, or Simulated Data in Their Office Environment

- **Multi-Discipline Testing**
  - Test Engineers Can Monitor & Control Multiple Systems From a Single Seat
  - Common Functions Such as Power or Cooling System Monitoring Can be Accomplished by a Single Engineer

- **Multi-Orbiter Control**
  - Multiple Orbiters Located in Any Facility Can be Controlled From a Single Control Room
  - A Single Control Room Can be Divided into Multiple 'Flow Zones' ; Each Linked to a Different Orbiter Under Test

Opening Remarks - CLCS New Features

- **Consolidated Data**
  - **Data Currently Residing Across Multi Control Room Platforms Will be Integrated into the Shuttle Data Center**
  - **Common Interfaces to Variety of Data Sources, Such as Acoustic Data, Hazardous Gas Detection Data, etc.**

- **Integrated Complex/Facility Control**
  - **Control of Facility Systems Will be Combined into the Control Rooms**
  - **The Complex Control Center Will be Eliminated**

- **Local Commanding Operations**
  - **The System Will Allow Commanding From Specific Controlled Areas as Enabled by Test Conductors**
  - **Subsystem Re-test Can be Performed Locally at the Test Item With Minimal Control Room Support**

- **Program Compatible Data**
  - **CLCS Uses Data Formats & Protocols Compatible With Other NASA Centers**
  - **Shuttle Centers Can Share Data and More Easily Compare Information**